## WHAT IS CLAIMED IS:

1. A compound of Formula I, or a pharmaceutically acceptable salt thereof:

$$Q \underset{O}{\bigvee} \overset{H}{\bigvee} T$$

5 wherein:

Q is:

OH OH OH OH OH OH 
$$R^2$$
 OH OH  $R^1$  OH  $R^2$  OH  $R^1$  OH  $R^2$  OH

T is:

$$X^1$$
 $X^2$ 
 $X^3$  or  $X^3$ 

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X1, X2 and X3 are each independently selected from the group consisting of -H, halo, -C1-4 alkyl, -O-C1-4 alkyl, -C1-4 fluoroalkyl, -SO2-C1-4 alkyl, -C(=O)-NH(-C1-4 alkyl), -C(=O)-N(-C1-4 alkyl)2, and HetA

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Y<sup>1</sup> is -H, halo, -C<sub>1</sub>-4 alkyl, or -C<sub>1</sub>-4 fluoroalkyl;

R<sup>1</sup> is:

(1) -H

- (2) -C<sub>1-6</sub> alkyl,
- (3) -C<sub>1-6</sub> fluoroalkyl,

- (4)  $-C_{1-6}$  alkyl-N(Ra)Rb,
- (5)  $-C_{1-6}$  alkyl-N(Ra)-C(=O)-Rb,
- (6) -C(=O)-Ra,
- (7) -C(=O)ORa,
- (8) -C(=O)-N(Ra)Rb
- (9)  $-C(=O)-N(R^a)-C_{1-6}$  alkyl-aryl,
- (10) -HetB,
- (11)  $-C(=O)-N(Ra)-C_{1-6}$  alkyl-HetB,
- (12) -C<sub>1-6</sub> alkyl-HetC,
- (13) -C(=O)-HetC,
- (14) -C(=O)-aryl, or
- (15) -C(=O)-HetB;

each HetA is independently a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S, wherein the heteroaromatic ring is optionally substituted with 1 or 2 substituents each of which is independently a -C<sub>1-4</sub> alkyl;

## HetB is:

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- (A) a 5- or 6-membered heteroaromatic ring containing from 1 to 4

  heteroatoms independently selected from N, O and S; wherein the heteroaromatic ring is attached to the rest of the compound via a carbon atom in the ring, and wherein the heteroaromatic ring is:
  - (i) optionally substituted with 1 or 2 substituents each of which is independently a -C<sub>1-4</sub> alkyl; and
  - (ii) optionally substituted with aryl or -C<sub>1-4</sub> alkyl-aryl; or
  - (B) a 9- or 10-membered aromatic heterobicyclic fused ring system containing from 1 to 4 heteroatoms independently selected from N, O and S; wherein the fused ring system consists of a 6-membered ring fused with either a 5-membered ring or another 6-membered ring, either ring of which is attached to the rest of the compound via a carbon atom; wherein the ring of the fused ring system attached to the rest of the compound via the carbon atom contains at least one of the heteroatoms; and wherein the fused ring system is:
    - (i) optionally substituted with 1 or 2 substituents each of which is independently a -C<sub>1-4</sub> alkyl; and

(ii) optionally substituted with aryl or -C<sub>1-4</sub> alkyl-aryl;

HetC is a 4- to 7-membered saturated heterocyclic ring containing at least one carbon atom and a total of from 1 to 4 heteroatoms independently selected from 1 to 4 N atoms, from 0 to 2 O atoms, and from 0 to 2 S atoms, wherein any ring S atom is optionally oxidized to SO or SO<sub>2</sub>, and wherein the heterocyclic ring is optionally fused with a benzene ring, and wherein the heterocyclic ring is attached to the rest of the compound via a N atom in the ring, and wherein the heterocyclic ring is:

(i) optionally substituted with 1 or 2 substituents each of which is independently a -C<sub>1-4</sub> alkyl, -C<sub>1-4</sub> alkyl-N(Ra)Rb, or -C(=O)ORa; and

(ii) optionally substituted with aryl, -C<sub>1-4</sub> alkyl-aryl, HetD, or -C<sub>1-4</sub> alkyl-HetD; wherein HetD is (i) a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S or (ii) a 4- to 7-membered saturated heterocyclic ring containing at least one carbon atom and from 1 to 4 heteroatoms independently selected from N, O and S;

 $R^2$  is -C<sub>1-6</sub> alkyl or -C<sub>1-6</sub> alkyl-aryl;

aryl is phenyl or naphthyl;

each Ra is independently H or C1-6 alkyl; and

- each Rb is independently H or C<sub>1-6</sub> alkyl.
  - 2. The compound according to claim 1, or a pharmaceutically acceptable salt thereof, wherein
- 30 R<sup>1</sup> is:

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- (1) -H,
- (2)  $-C_{1-3}$  alkyl,
- (3) -C<sub>1-3</sub> fluoroalkyl,
- (4) -C<sub>1-3</sub> alkyl-NH<sub>2</sub>,

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(5)
                                    -C_{1-3} alkyl-NH(-C_{1-3} alkyl),
                           (6)
                                    -C_{1-3} alkyl-N(-C<sub>1-3</sub> alkyl)<sub>2</sub>,
                           (7)
                                    -C_{1-3} alkyl-NH-C(=O)-C<sub>1-3</sub> alkyl,
                           (8)
                                    -C_{1-3} alkyl-N(-C<sub>1-3</sub> alkyl)-C(=O)-C<sub>1-3</sub> alkyl,
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                           (9)
                                    -C(=O)H
                           (10)
                                    -C(=O)-C_{1-3} alkyl,
                           (11)
                                    -CO<sub>2</sub>H,
                           (12)
                                    -C(=O)O-C_{1-3} alkyl,
                           (13)
                                    -C(=O)-NH(-C_{1-3} \text{ alkyl}),
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                           (14)
                                    -C(=O)-N(-C_{1-3} \text{ alkyl})_{2}
                          (15)
                                    -C(=O)-NH-CH<sub>2</sub>-phenyl,
                          (16)
                                    -C(=O)-N(CH<sub>3</sub>)-CH<sub>2</sub>-phenyl,
                          (17)
                                    -HetB,
                          (18)
                                    -C(=O)-NH-CH_2-HetB,
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                          (19)
                                    -C(=O)-N(CH_3)-CH_2-HetB,
                          (20)
                                    -CH<sub>2</sub>-HetC,
                          (21)
                                    -CH(CH<sub>3</sub>)-HetC, or
                          (22)
                                    -C(=O)-HetC;
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## 20 HetB is:

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- (A) a 5- or 6-membered heteroaromatic ring containing a total of from 1 to 3 heteroatoms independently selected from zero to 3 N atoms, zero or 1 O atoms, and zero or 1 S atoms; wherein the heteroaromatic ring is attached to the rest of the compound via a carbon atom in the ring, and wherein the heteroaromatic ring is:
  - (i) optionally substituted with 1 or 2 substituents each of which is independently a -C<sub>1-3</sub> alkyl; and
  - (ii) optionally substituted with phenyl or -CH2-phenyl; or
- (B) a 9- or 10-membered aromatic heterobicyclic fused ring system containing a total of from 1 to 4 heteroatoms independently selected from 1 to 4 N atoms, zero or 1 O atoms, and zero or 1 S atoms; wherein the fused ring system consists of a 6-membered ring fused with either a 5-membered ring or another 6-membered ring, either ring of which is attached to the rest of the compound via a carbon atom; wherein the ring of the fused ring system attached to the rest of the compound via the carbon atom contains at least one of the heteroatoms; and wherein the fused ring system is:

(i) optionally substituted with 1 or 2 substituents each of which is independently a -C<sub>1-3</sub> alkyl; and

- (ii) optionally substituted with phenyl or -CH2-phenyl; and
- HetC is a 5- or 6-membered saturated heterocyclic ring containing a total of from 1 to 3 heteroatoms independently selected from 1 to 3 N atoms, zero or 1 O atoms, and zero or 1 S atoms, wherein any ring S atom is optionally oxidized to SO or SO<sub>2</sub>, and wherein the heterocyclic ring is optionally fused with a benzene ring, and wherein the heterocyclic ring is attached to the rest of the compound via a N atom in the ring, and wherein the heterocyclic ring is:
  - (i) optionally substituted with -C<sub>1-3</sub> alkyl, -(CH<sub>2</sub>)<sub>1-2</sub>-NH(-C<sub>1-3</sub> alkyl), -(CH<sub>2</sub>)<sub>1-2</sub>-N(-C<sub>1-3</sub> alkyl)<sub>2</sub> or -C(=O)O-C<sub>1-3</sub> alkyl; and
  - (ii) optionally substituted with phenyl, -CH2-phenyl, HetD, or -(CH2)1-2-HetD; wherein HetD is (i) a 5- or 6-membered heteroaromatic ring containing a total of from 1 to 3 heteroatoms independently selected from zero to 3 N atoms, zero or 1 O atoms, and zero or 1 S atoms or (ii) a 5- or 6-membered saturated heterocyclic ring containing a total of from 1 to 3 heteroatoms independently selected from 1 to 3 N atoms, zero or 1 O atoms, and zero or 1 S atoms.
  - 3. The compound according to claim 2, or a pharmaceutically acceptable salt thereof, wherein  $R^1$  is:
    - (1) -CF<sub>3</sub>,
- 25 (2)  $-CH(CH_3)-N(CH_3)_2$ ,

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- (3)  $-C(=O)-CH_3$ ,
- (4)  $-CO_2H$ ,
- (5)  $-C(=O)OCH_3$ ,
- (6)  $-C(=O)-NH(CH_3)$ ,
- (7)  $-C(=O)-N(CH_3)_2$ 
  - (8)  $-C(=O)-NH(CH_2CH_3)$ ,
  - (9)  $-C(=O)-N(CH_2CH_3)_2$ ,
  - (10)  $-C(=O)-NH(CH(CH_3)_2)$ ,
  - (11) -C(=O)-NH-CH2-phenyl,

- (12) -C(=O)-N(CH<sub>3</sub>)-CH<sub>2</sub>-phenyl,
- (13) -HetB,

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- (14) -C(=O)-NH-CH<sub>2</sub>-HetB,
- (15)  $-C(=O)-N(CH_3)-CH_2-HetB$ , or
- (16) -C(=O)-HetC;

HetB is a heteroaromatic ring selected from the group consisting of oxadiazolyl, thiophenyl, pyrazolyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, imidazolyl, pyridinyl, pyrimidinyl, pyrazinyl, and pyridoimidazolyl; wherein the heteroaromatic ring is attached to the rest of the compound via a carbon atom in the ring, and wherein the heteroaromatic ring is optionally substituted with methyl or phenyl; and

HetC is a heterocyclic ring selected from the group consisting of pyrrolidinyl, morpholinyl, piperidinyl, piperazinyl, and piperidinyl fused with a benzene ring; wherein the heterocyclic ring is attached to the rest of the compound via a N atom in the ring, and wherein the heterocyclic ring is optionally substituted with methyl, -CH<sub>2</sub>N(CH<sub>3</sub>)<sub>2</sub>, -C(=O)OCH<sub>2</sub>CH<sub>3</sub>, pyridinyl, -CH<sub>2</sub>-pyridinyl, -CH<sub>2</sub>-morpholinyl, or -CH<sub>2</sub>CH<sub>2</sub>-morpholinyl.

- 4. The compound according to claim 1, or a pharmaceutically acceptable salt 20 thereof, wherein T is 4-fluorophenyl.
  - 5. The compound according to claim 1, or a pharmaceutically acceptable salt thereof, wherein R<sup>2</sup> is methyl.
- 25 6. A compound according to claim 1, or a pharmaceutically acceptable salt thereof, which is a compound selected from the group consisting of:
  - 1-benzyl-N-(2,3-dimethoxybenzyl)-3-hydroxy-2-oxo-1,2-dihydropyridine-4-carboxamide;
- N-(4-fluorobenzyl)-3-hydroxy-1-methyl-2-oxo-1,2-dihydropyridine-4-carboxamide;
  - N-(4-fluorobenzyl)-3-hydroxy-1,6-dimethyl-2-oxo-1,2-dihydropyridine-4-carboxamide;

 $N^2$ -benzyl- $N^2$ -(4-fluorobenzyl)-5-hydroxy- $N^2$ ,1-dimethyl-6-oxo-1,6-dihydropyridine-2,4-dicarboxamide;

6-acetyl-N-(4-fluorobenzyl)-3,4-dihydroxypyridine-2-carboxamide;

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 $6\hbox{-}[1\hbox{-}(dimethylamino)ethyl]\hbox{-}{\it N}\hbox{-}(4\hbox{-}fluorobenzyl)\hbox{-}3,} 4\hbox{-}dihydroxypyridine\hbox{-}2\hbox{-}carboxamide;}$ 

6-{[(4-fluorobenzyl)amino]carbonyl}-4,5-dihydroxypyridine-2-carboxylic acid;

methyl 6-{[(4-fluorobenzyl)amino]carbonyl}-4,5-dihydroxypyridine-2-carboxylate;

 $N^2$ -(4-fluorobenzyl)-3,4-dihydroxy- $N^6$ -methylpyridine-2,6-dicarboxamide;

 $N^2$ -(4-fluorobenzyl)-3,4-dihydroxy- $N^6$ -(pyridin-3-ylmethyl)pyridine-2,6-dicarboxamide;

 $N^2$ -(4-fluorobenzyl)-3,4-dihydroxy- $N^6$ , $N^6$ -dimethylpyridine-2,6-dicarboxamide;

N-(4-fluorobenzyl)-3,4-dihydroxy-6-pyrrolidin-1-ylcarbonyl-pyridine-2-carboxamide;

20 N-(4-fluorobenzyl)-3,4-dihydroxy-6-(morpholin-4-ylcarbonyl)-pyridine-2-carboxamide;

N6-Benzyl-N2-(4-fluorobenzyl)-3,4-dihydroxypyridine-2,6-dicarboxamide;

 $N^2$ -(4-fluorobenzyl)-3,4-dihydroxy- $N^6$ -isopropylpyridine-2,6-dicarboxamide;

 $N^2$ -(4-fluorobenzyl)-3,4-dihydroxy- $N^6$ , $N^6$ -diethylpyridine-2,6-dicarboxamide;

N-(4-fluorobenzyl)-3,4-dihydroxy-6-((5-methyl)-1,3,4-oxadiazol-2-yl)-pyridine-2-carboxamide;

30 *N*-(4-fluorobenzyl)-2,3-dihydroxy-6-[1-(morpholin-4-yl)ethyl]-4-pyridinecarboxamide;

6-{1-[acetyl(methyl)amino]ethyl}-N-(4-fluorobenzyl)-2,3-dihydroxyisonicotinamide;

N-(4-fluorobenzyl)-2,3-dihydroxy-6-(2-thienyl)-4-pyridinecarboxamide;

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N-(4-fluorobenzyl)-2,3-dihydroxy-6-(3-pyridinyl)-4-pyridinecarboxamide;
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N-(4-fluorobenzyl)-2,3-dihydroxy-6-(2-pyridinyl)-4-pyridinecarboxamide;

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 $N^2$ -benzyl- $N^4$ -(4-fluorobenzyl)-5,6-dihydroxy- $N^2$ -methylpyridine-2,4-dicarboxamide;

 $N^2$ -benzyl- $N^4$ -(4-fluorobenzyl)-5,6-dihydroxypyridine-2,4-dicarboxamide;

 $N^4$ -(4-fluorobenzyl)-5,6-dihydroxy- $N^2$ , $N^2$ -dimethylpyridine-2,4-dicarboxamide;

 $N^4$ -(4-fluorobenzyl)-5,6-dihydroxy- $N^2$ -methyl- $N^2$ -(1H-pyrazol-5-ylmethyl)pyridine-2,4-dicarboxamide;

- 6-(3,4-dihydroisoquinolin-2(1*H*)-ylcarbonyl)-*N*-(4-fluorobenzyl)-2,3-dihydroxyisonicotinamide;
  - N-(4-fluorobenzyl)-2,3-dihydroxy-6-(trifluoromethyl)isonicotinamide;
  - $N^4$ -(4-fluorobenzyl)-5,6-dihydroxy- $N^2$ -(1,3-thiazol-5-ylmethyl)pyridine-2,4-dicarboxamide;
  - N-(4-fluorobenzyl)-2,3-dihydroxy-6-[(3-pyridin-2-ylpyrrolidin-1-yl)carbonyl]isonicotinamide;
  - $N^4$ -(4-fluorobenzyl)-5,6-dihydroxy- $N^2$ -methyl- $N^2$ -(1,3-thiazol-5-ylmethyl)pyridine-2,4-dicarboxamide;
  - N-(4-fluorobenzyl)-2,3-dihydroxy-6-[(3-pyridin-4-ylpyrrolidin-1-yl)carbonyl]isonicotinamide;
  - N-(4-fluorobenzyl)-2,3-dihydroxy-6-{[4-(morpholin-4-ylmethyl)piperidin-1-yl]carbonyl}isonicotinamide;
  - N-(4-fluorobenzyl)-2,3-dihydroxy-6-{[3-(morpholin-4-ylmethyl)piperidin-1-yl]carbonyl}isonicotinamide;
  - N- (4-fluor obenzyl)-2, 3-dihydroxy-6-[(2-pyridin-4-ylpyrrolidin-1-yl) carbonyl] is onicotinamide;

N-(4-fluorobenzyl)-2,3-dihydroxy-6-[(2-pyridin-3-ylpyrrolidin-1-yl)carbonyl]isonicotinamide;

6-({3-[(dimethylamino)methyl]piperidin-1-yl}carbonyl)-*N*-(4-fluorobenzyl)-2,3-dihydroxyisonicotinamide;

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- $N^4$ -(4-fluorobenzyl)-5,6-dihydroxy- $N^2$ -methyl- $N^2$ -[(4-methyl-1,2,5-oxadiazol-3-yl)methyl]pyridine-2,4-dicarboxamide;
- $N^4$ -(4-fluorobenzyl)-5,6-dihydroxy- $N^2$ -methyl- $N^2$ -[(2-phenyl-1,3-thiazol-4-yl)methyl]pyridine-2,4-dicarboxamide;
  - $N^4$ -(4-fluorobenzyl)-5,6-dihydroxy- $N^2$ -(imidazo[1,2-a]pyridin-3-ylmethyl)- $N^2$ -methylpyridine-2,4-dicarboxamide;
  - N-(4-fluorobenzyl)-2,3-dihydroxy-6-{[4-(2-morpholin-4-ylethyl)piperazin-1-yl]carbonyl}isonicotinamide;
- ethyl 4-[(4-{[(4-fluorobenzyl)amino]carbonyl}-5,6-dihydroxypyridin-2-yl)carbonyl]piperazine-1-20 carboxylate;
  - N-(4-fluorobenzyl)-2,3-dihydroxy-6-[(4-pyridin-2-ylpiperazin-1-yl)carbonyl]isonicotinamide;
  - N-(4-fluorobenzyl)-2,3-dihydroxy-6-[(4-methylpiperazin-1-yl)carbonyl]isonicotinamide;
  - ${\it N-} (4-fluor obenzyl)-2, 3-dihydroxy-6-[(2-pyridin-2-ylpyrrolidin-1-yl) carbonyl] is onicotinamide;$
  - N-(4-fluorobenzyl)-2,3-dihydroxy-6-{[4-(pyridin-3-ylmethyl)piperazin-1-yl]carbonyl}isonicotinamide;
  - N-(4-fluorobenzyl)-2,3-dihydroxy-6-pyrimidin-5-ylisonicotinamide;
  - $N^4$ -(4-fluorobenzyl)-5,6-dihydroxy- $N^2$ -(isoxazol-3-ylmethyl)- $N^2$ -methylpyridine-2,4-dicarboxamide;

 $N^4$ -(4-fluorobenzyl)-5,6-dihydroxy- $N^2$ -methyl- $N^2$ -[(1-methyl-1H-imidazol-2-yl)methyl]pyridine-2,4-dicarboxamide;

5  $N^4$ -(4-fluorobenzyl)-5,6-dihydroxy- $N^2$ -methyl- $N^2$ -[(5-methyl-1,3,4-oxadiazol-2-yl)methyl]pyridine-2,4-dicarboxamide; and

 $N^4$ -(4-Fluorobenzyl)-5,6-dihydroxy- $N^2$ -methyl- $N^2$ -(pyrazin-2-ylmethyl)pyridine-2,4-dicarboxamide.

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7. A compound of Formula II, or a pharmaceutically acceptable salt thereof:

wherein R<sup>1</sup> is:

(1) -C<sub>1-4</sub> fluoroalkyl,

15 (2)  $-C_{1-4}$  alkyl-N(Ra)Rb,

(3) -C(=O)-Ra,

(4) -C(=O)ORa,

(5) -C(=O)-N(Ra)Rb,

(6)  $-C(=O)-N(Ra)-C_{1-4}$  alkyl-aryl,

20 (7) -HetB

(8)  $-C(=O)-N(R^a)-C_{1-4}$  alkyl-HetB, or

(9) -C(=O)-HetC;

HetB is:

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(A) a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; wherein the heteroaromatic ring is attached to the rest of the compound via a carbon atom in the ring, and wherein the heteroaromatic ring is:

(i) optionally substituted with 1 or 2 substituents each of which is independently a -C<sub>1-4</sub> alkyl; and

- (ii) optionally substituted with aryl or -C<sub>1-4</sub> alkyl-aryl; or
- (B) a 9- or 10-membered aromatic heterobicyclic fused ring system containing from 1 to 4 heteroatoms independently selected from N, O and S; wherein the fused ring system consists of a 6-membered ring fused with either a 5-membered ring or another 6-membered ring, either ring of which is attached to the rest of the compound via a carbon atom; wherein the ring of the fused ring system attached to the rest of the compound via the carbon atom contains at least one of the heteroatoms; and wherein the fused ring system is:
  - (i) optionally substituted with 1 or 2 substituents each of which is independently a -C<sub>1-4</sub> alkyl; and
  - (ii) optionally substituted with aryl or -C<sub>1-4</sub> alkyl-aryl;
- HetC is a 4- to 7-membered saturated heterocyclic ring containing at least one carbon atom and a total of from 1 to 4 heteroatoms independently selected from 1 to 4 N atoms, from 0 to 2 O atoms, and from 0 to 2 S atoms, wherein any ring S atom is optionally oxidized to SO or SO<sub>2</sub>, and wherein the heterocyclic ring is optionally fused with a benzene ring, and wherein the heterocyclic ring is attached to the rest of the compound via a N atom in the ring, and wherein the heterocyclic ring is:
  - (i) optionally substituted with 1 or 2 substituents each of which is independently a -C<sub>1-4</sub> alkyl, -C<sub>1-4</sub> alkyl-N(R<sup>a</sup>)R<sup>b</sup>, or -C(=O)ORa; and
  - (ii) optionally substituted with aryl, -C<sub>1-4</sub> alkyl-aryl, HetD, or -C<sub>1-4</sub> alkyl-HetD; wherein HetD is (i) a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S or (ii) a 4- to 7-membered saturated heterocyclic ring containing at least one carbon atom and from 1 to 4 heteroatoms independently selected from N, O and S;

aryl is phenyl or naphthyl;

each  $R^a$  is independently H or  $C_{\hbox{\scriptsize 1-4}}$  alkyl; and

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each  $R^b$  is independently H or  $C_{1-4}$  alkyl.

8. A compound according to claim 7, or a pharmaceutically acceptable salt thereof, wherein R<sup>1</sup> is:

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- (1) -CF<sub>3</sub>,
- (2)  $-C(=O)-CH_3$ ,
- (3)  $-CO_2H$ ,
- (4)  $-C(=O)OCH_3$ ,
- (5)  $-C(=O)-NH(CH_3)$ ,

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- (6)  $-C(=O)-N(CH_3)_2$ ,
- (7)  $-C(=O)-NH(CH_2CH_3)$ ,
- (8)  $-C(=O)-N(CH_2CH_3)_2$ ,
- (9)  $-C(=O)-NH(CH(CH_3)_2)$ ,
- (10)  $-C(=O)-NH-CH_2-phenyl$ ,

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- (11)  $-C(=O)-N(CH_3)-CH_2-phenyl$ ,
- (12) -HetB,
- (13)  $-C(=O)-NH-CH_2-HetB$ ,
- (14)  $-C(=O)-N(CH_3)-CH_2-HetB$ , or
- (15) -C(=O)-HetC.

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9. A compound of Formula III, or a pharmaceutically acceptable salt thereof:

$$\mathbb{R}^1$$
  $\mathbb{N}$   $\mathbb{N}$   $\mathbb{N}$   $\mathbb{N}$   $\mathbb{N}$   $\mathbb{N}$   $\mathbb{N}$   $\mathbb{N}$ 

wherein:

- $R^1$  is:
- (1) -C<sub>1-4</sub> fluoroalkyl,
- (2)  $-C_{1-4}$  alkyl-N(Ra)-C(=O)-Rb,
- (3) -C(=O)-Ra,
- (4) -C(=O)ORa,

- (5)  $-C(=O)-N(R^a)R^b$ ,
- (6)  $-C(=O)-N(Ra)-C_{1-4}$  alkyl-aryl,
- (7) -HetB,
- (8)  $-C(=O)-N(R^a)-C_{1-4}$  alkyl-HetB,
- (9) -C<sub>1-4</sub> alkyl-HetC, or
- (10) -C(=O)-HetC;

## HetB is:

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- (A) a 5- or 6-membered heteroaromatic ring containing from 1 to 4

  heteroatoms independently selected from N, O and S; wherein the heteroaromatic ring is attached to the rest of the compound via a carbon atom in the ring, and wherein the heteroaromatic ring is:
  - (i) optionally substituted with 1 or 2 substituents each of which is independently a -C<sub>1-4</sub> alkyl; and
  - (ii) optionally substituted with aryl or -C<sub>1-4</sub> alkyl-aryl; or
  - (B) a 9- or 10-membered aromatic heterobicyclic fused ring system containing from 1 to 4 heteroatoms independently selected from N, O and S; wherein the fused ring system consists of a 6-membered ring fused with either a 5-membered ring or another 6-membered ring, either ring of which is attached to the rest of the compound via a carbon atom; wherein the ring of the fused ring system attached to the rest of the compound via the carbon atom contains at least one of the heteroatoms; and wherein the fused ring system is:
    - (i) optionally substituted with 1 or 2 substituents each of which is independently a -C<sub>1-4</sub> alkyl; and
    - (ii) optionally substituted with aryl or -C<sub>1-4</sub> alkyl-aryl;

HetC is a 4- to 7-membered saturated heterocyclic ring containing at least one carbon atom and a total of from 1 to 4 heteroatoms independently selected from 1 to 4 N atoms, from 0 to 2 O atoms, and from 0 to 2 S atoms, wherein any ring S atom is optionally oxidized to SO or SO<sub>2</sub>, and wherein the heterocyclic ring is optionally fused with a benzene ring, and wherein the heterocyclic ring is attached to the rest of the compound via a N atom in the ring, and wherein the heterocyclic ring is:

(i) optionally substituted with 1 or 2 substituents each of which is independently a -C1-4 alkyl, -C1-4 alkyl-N( $R^a$ ) $R^b$ , or -C(=O)ORa; and

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(ii) optionally substituted with aryl, -C<sub>1-4</sub> alkyl-aryl, HetD, or -C<sub>1-4</sub> alkyl-HetD; wherein HetD is (i) a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S or (ii) a 4- to 7-membered saturated heterocyclic ring containing at least one carbon atom and from 1 to 4 heteroatoms independently selected from N, O and S;

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aryl is phenyl or naphthyl;

Ra is H or C<sub>1-4</sub> alkyl; and

15 Rb is H or C<sub>1-4</sub> alkyl.

10. A compound according to claim 9, or a pharmaceutically acceptable salt thereof, wherein R<sup>1</sup> is:

- (1) -CF<sub>3</sub>,
- 20 (2)  $-C(=O)-CH_3$ ,
  - (3)  $-CO_2H$ ,
  - (4)  $-C(=O)OCH_3$ ,
  - (5)  $-C(=O)-NH(CH_3)$ ,
  - (6)  $-C(=O)-N(CH_3)_2$ ,
  - (7)  $-C(=O)-NH(CH_2CH_3)$ ,
    - (8)  $-C(=O)-N(CH_2CH_3)_2$ ,
    - (9) -C(=O)-NH(CH(CH<sub>3</sub>)<sub>2</sub>),
    - (10)  $-C(=O)-NH-CH_2-phenyl$ ,
    - (11)  $-C(=O)-N(CH_3)-CH_2$ -phenyl,
- 30 (12) -HetB,
  - (13)  $-C(=O)-NH-CH_2-HetB$ ,
  - (14)  $-C(=O)-N(CH_3)-CH_2-HetB$ , or
  - (15) -C(=O)-HetC.

11. A compound of Formula IV, or a pharmaceutically acceptable salt thereof:

wherein R<sup>1</sup> is:

(1) -H,

 $\begin{array}{ccc} (1) & -\mathbf{r} \\ (2) & -\mathbf{C} \end{array}$ 

(2) -C<sub>1-4</sub> alkyl,(3) -C<sub>1-4</sub> fluoroalkyl,

(4) -C(=O)-Ra,

(5) -C(=O)ORa,

(6) -C(=O)-N(Ra)Rb,

(7)  $-C(=O)-N(Ra)-C_{1-4}$  alkyl-aryl,

(8) -HetB,

(9)  $-C(=O)-N(Ra)-C_{1-4}$  alkyl-HetB, or

(10) -C(=O)-HetC;

15 HetB is:

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(A) a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S; wherein the heteroaromatic ring is attached to the rest of the compound via a carbon atom in the ring, and wherein the heteroaromatic ring is:

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- (i) optionally substituted with 1 or 2 substituents each of which is independently a -C<sub>1-4</sub> alkyl; and
- (ii) optionally substituted with aryl or -C<sub>1-4</sub> alkyl-aryl; or
- (B) a 9- or 10-membered aromatic heterobicyclic fused ring system containing from 1 to 4 heteroatoms independently selected from N, O and S; wherein the fused ring system consists of a 6-membered ring fused with either a 5-membered ring or another 6-membered ring, either ring of which is attached to the rest of the compound via a carbon atom; wherein the ring of the fused ring system attached to the rest of the compound via the carbon atom contains at least one of the heteroatoms; and wherein the fused ring system is:

(i) optionally substituted with 1 or 2 substituents each of which is independently a -C<sub>1-4</sub> alkyl; and

- (ii) optionally substituted with aryl or -C<sub>1-4</sub> alkyl-aryl;
- HetC is a 4- to 7-membered saturated heterocyclic ring containing at least one carbon atom and a total of from 1 to 4 heteroatoms independently selected from 1 to 4 N atoms, from 0 to 2 O atoms, and from 0 to 2 S atoms, wherein any ring S atom is optionally oxidized to SO or SO<sub>2</sub>, and wherein the heterocyclic ring is optionally fused with a benzene ring, and wherein the heterocyclic ring is attached to the rest of the compound via a N atom in the ring, and wherein the heterocyclic ring is:
  - (i) optionally substituted with 1 or 2 substituents each of which is independently a -C<sub>1-4</sub> alkyl, -C<sub>1-4</sub> alkyl-N(Ra)Rb, or -C(=O)ORa; and
  - (ii) optionally substituted with aryl, -C<sub>1-4</sub> alkyl-aryl, HetD, or -C<sub>1-4</sub> alkyl-HetD; wherein HetD is (i) a 5- or 6-membered heteroaromatic ring containing from 1 to 4 heteroatoms independently selected from N, O and S or (ii) a 4- to 7-membered saturated heterocyclic ring containing at least one carbon atom and from 1 to 4 heteroatoms independently selected from N, O and S;

aryl is phenyl or naphthyl;

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Ra is H or C<sub>1-4</sub> alkyl; and

25  $R^b$  is H or  $C_{1-4}$  alkyl.

12. A compound according to claim 11, or a pharmaceutically acceptable salt thereof, wherein  $\mathbb{R}^1$  is:

- (1) -CF<sub>3</sub>,
- (2)  $-C(=O)-CH_3$ ,
- (3)  $-CO_2H$ ,
- (4)  $-C(=O)OCH_3$ ,
- (5)  $-C(=O)-NH(CH_3)$ ,
- (6)  $-C(=O)-N(CH_3)_2$ ,

- (7)  $-C(=O)-NH(CH_2CH_3),$
- (8)  $-C(=O)-N(CH_2CH_3)_2$ ,
- (9)  $-C(=O)-NH(CH(CH_3)_2),$
- (10) -C(=O)-NH-CH<sub>2</sub>-phenyl,
- (11) -C(=O)-N(CH<sub>3</sub>)-CH<sub>2</sub>-phenyl,
- (12) -HetB,
- (13)  $-C(=O)-NH-CH_2-HetB$ ,
- (14)  $-C(=O)-N(CH_3)-CH_2-HetB$ , or
- (15) -C(=O)-HetC.

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- 13. A pharmaceutical composition comprising an effective amount of a compound according to any one of claims 1 to 12, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.
- 14. A method of inhibiting HIV integrase in a subject in need thereof which comprises administering to the subject an effective amount of the compound according to any one of claims 1 to 12, or a pharmaceutically acceptable salt thereof.
- 15. A method for preventing or treating infection by HIV or for preventing,
  treating or delaying the onset of AIDS in a subject in need thereof which comprises administering
  to the subject an effective amount of the compound according to any one of claims 1 to 12, or a
  pharmaceutically acceptable salt thereof.
- one of claims claim 1 to 12, or a pharmaceutically acceptable salt thereof, and (ii) an HIV infection/AIDS antiviral agent selected from the group consisting of HIV protease inhibitors, non-nucleoside HIV reverse transcriptase inhibitors and nucleoside HIV reverse transcriptase inhibitors; wherein the compound of (i) or its pharmaceutically acceptable salt and the HIV infection/AIDS antiviral agent of (ii) are each employed in an amount that renders the combination effective for inhibiting HIV integrase, for treating or preventing infection by HIV, or for preventing, treating or delaying the onset of AIDS.

17. A compound according to any one of claims 1 to 12, or a pharmaceutically acceptable salt thereof, for use in the preparation of a medicament for inhibiting HIV integrase in a subject in need thereof.

18. A compound according to any one of claims 1 to 12, or a pharmaceutically acceptable salt thereof, for use in the preparation of a medicament for treating infection by HIV or for preventing, treating or delaying the onset of AIDS in a subject in need thereof.